3. (original) The switch of claim 1, wherein the data and buffered packets are classified according to one of (a) packet data length and (b) length of non-packet data.

4. (previously presented) The switch of claim 3, wherein at least one data packet with a length within a first range is associated with a first queue, a further data packet with a length within a second range is associated with a second queue, and a still further data packet with a length within a third range is associated with a third queue.

5. (previously presented) The switch of claim 1 wherein the buffer unit has inputs with data originating from lines external to the switch.

6. (previously presented) The switch of claim 5, wherein the lines external to the switch are aggregation inputs.

7. (previously presented) The switch of claim 1, wherein the buffer unit has an input and the data, at the buffer unit input is routed from a one or more switch inputs.

8. (original) The switch of claim 1, where the switch is selected to operate within one of the following networks among the group consisting of electronic buffers allow a variable delay of packets, an optical bursts switched network, an electronic packet switched network, a WDM network, and an electronic bursts switched network.

9. (original) The switch of claim 5, where the switch is an optical switching unit.

10. (original) The switch according to claim 5, where the switch is an electronic switching unit.

11. (original) The switch of claim 7, where at least one of the output or input signals of the switch are WDM.

12. (original) The switch of claim 9, where the buffer is an electronic type of buffer.

13. (currently amended) A method for organizing dataflows in an asynchronous communication network including at least one switch, where said switch is associated with at least one buffer having fiber optic inputs and outputs with a plurality of data queues and at least a dataflow that can be divided into data packets, comprising~~: communicating dataflow to the buffer, and reorganizing the data by assigning data packets according to length to different buffer queues and scheduling outbound data from the buffer unit when a predefined number, being at least two, of wavelengths leading to a buffered output destination being monitored to be vacant,~~

switching data packets arriving at the switch inputs directly to the switch outputs when a predefined number, being at least one, of wavelengths being monitored, is vacant,

communicating data packets arriving at the switch inputs directly to the buffer unit, if none wavelengths are vacant, and reorganizing the data by assigning data packets according to ranges of length to different buffer queues,

scheduling outbound data packets from the buffer unit to the switch input the moment when a predefined number, being at least two, of wavelengths leading to a switch output destination being monitored to be vacant,

whereby data packets having shorter lengths have greater probability of encountering sufficient vacant outputs of different wavelengths and data packets having longer lengths having lesser probability of encountering sufficient vacant outputs of different wavelengths.

14. (previously presented) The method of claim 13 further defined by monitoring to schedule data from the buffer unit to an output of the switch upon a number of vacant wavelengths at the output of the switch being at least the predefined number.

15. (original) The method of claim 13 further defined by buffering data packets into a number of queues according to parameters of the data packets.

16. (original) The method of claim 13, wherein the method further comprises associating data packets with a length within a first range with a first queue.

17. (original) The method of claim 13, wherein the method further comprises associating data packets with a length within a second range with a second queue.

18. (original) The method of claim 13, wherein the method further comprises associating data packets with a length within a third range with a third queue.

19. (cancelled)

20. (currently amended) The method of claim 13 ~~19~~, wherein the predefined number of vacant wavelengths is specific to each queue.

21. (cancelled)